

## Product Insert

Cat No: HD786

Batch: 29797

Template: 6135 USR-03 (V-02)

## Structural Multiplex cfDNA Reference Standard

## Product Handling:

Horizon Diagnostics recommends quantifying the material using preferred laboratory method and instrumentation prior to use.

## Origin of Material:

- Horizon Diagnostics uses a proprietary genome engineering platform to precisely engineer mutations within human cancer cell lines.
- The cell line DNA is fragmented to an average fragment length of 160 bp which resembles cfDNA extracted from plasma.
- Additional information can be found on Product Specification Sheet (6135 PSS) on the website for this catalogue number.

## Allelic Frequency Verification Data:

- Data is provided in Table 1 and Table 2. These values represent only the QC assays performed by Horizon using an input of 100 ng and are an average of 4 replicates.

Gene	Variant	Amplicon size (bp)	Expected AF (%)	WT Conc (copies/ $\mu$ l)	Mutant Conc (copies/ $\mu$ l)	Total Conc (copies/ $\mu$ l)
GNA11	Q209L	83	5.6	8940	480	9420
PIK3CA	E545K	81	5.6	8380	426	8806
EGFR	V769_D770insA SV	122 (WT)/ 131 (MT)	5.6	4090	181	4271
ROS1	SLC34A2/ROS1 fusion	94 (fusion)/91 (SLC34A2)	5.6	6400	453	6853
EGFR	$\Delta$ E746-A750	110 (WT) / 95 (MT)	5.3	5090	320	5410
AKT1	E17K	89	5.0	7970	363	8333
RET	CCDC6/RET fusion	93 (fusion) / 110 (RET)	5.0	6230	265	6495

**Table 1:** Copy number data collected by Droplet Digital™ PCR (ddPCR).

The differences in the observed allelic frequency ROS1 and EGFR  $\Delta$ E746-A750 are due to the differences in amplicon size.

Target Gene	Reference Gene	Amplicon size (bp)	Expected Gene Copy	Target Gene Conc (copies/ $\mu$ l)	Reference Gene Conc (copies/ $\mu$ l)	Total Conc (copies/ $\mu$ l)
MET Amplification	98 (MET) / 87 (RNaseP)	98 (MET) / 87 (RNaseP)	4.5x	7408.0	3140.0	N/A
MYCN Amplification	87	87	9.5x	17440.0	3132.0	N/A

**Table 2:** Gene copy and copy number data collected by Droplet Digital™ PCR (ddPCR).

A PDF version is available from the following link:  
<https://www.horizondiscovery.com/orders/336905525>